

Memorandum

To: Robert B. Weisenmiller, Chair
James D. Boyd, Vice Chair
Karen Douglas, Commissioner
Carla Peterman, Commissioner

Date: October 3, 2011
Telephone: (916) 654-4996

From: California Energy Commission – Robert Oglesby
1516 Ninth Street Executive Director
Sacramento, CA 95814-5512

Subject: **HIDDEN HILLS SOLAR ELECTRICAL GENERATING SYSTEM, REVISED DATA ADEQUACY RECOMMENDATION (11-AFC-2)**

On August 5, 2011, Hidden Hills Solar Holdings, LLC, submitted an Application for Certification (AFC) to construct and operate the Hidden Hills Solar Electric Generating System (HHSEGS). HHSEGS will be located on approximately 3,277 acres of privately owned land leased in Inyo County, California, immediately adjacent to the Nevada border. The project site is approximately 18 miles south of Pahrump, Nevada, and approximately 45 miles west of Las Vegas, Nevada.

Staff's September 2, 2011 initial review of Hidden Hills Solar Holdings, LLC's AFC determined that it did not meet all the requirements listed in Title 20, section 1704, and Division 2, Chapter 5, Appendix B of the California Code of Regulations for the 12-month process. Specifically, the AFC was deficient in nine of 22 technical areas: air quality, biological resources, cultural resources, efficiency, land use, traffic and transportation, transmission system design, visual resources and water. At the September 7, 2011 Business Meeting, the Energy Commission accepted staff's initial data adequacy recommendation.

On September 9, 2011, Hidden Hills Solar Holdings LLC filed their AFC Supplement. On September 23, 2011, Supplement B provided greater biological resources and cultural resources information and details. Staff has reviewed the Supplemental information, and believes the AFC now meets the regulatory requirements in all nine of the previously deficient technical disciplines. Attached are summary table and data adequacy worksheets for the nine technical disciplines reflecting that the Supplemental information submitted by the applicant achieves data adequacy. At the Energy Commission's Business Meeting on October 5, 2011, I will recommend that the Energy Commission accept the Hidden Hills Solar Electric Generating System AFC, with the supplemental information, as complete and request that a Committee be appointed. If you have any questions, please call Mike Monasmith, Staff's Project Manager, at (916) 654-4894.

Attachment A
Overview of Energy Commission Staff's
Data Adequacy Determination
Hidden Hills Solar Electric Generating System
11-AFC-2

Technical Area	Attachment B Page No.	Adequate ?
AIR QUALITY.....	4	YES
BIOLOGICAL RESOURCES.....	10	YES
CULTURAL RESOURCES.....	24	YES
EFFICIENCY.....	32	YES
LAND USE.....	34	YES
TRAFFIC AND TRANSPORTATION.....	38	YES
TRANSMISSION SYSTEM DESIGN.....	42	YES
VISUAL RESOURCES	47	YES
WATER RESOURCES.....	54	YES

ATTACHMENT B

ENERGY COMMISSION STAFF'S List of Revised Data Adequacy Sheets

**Hidden Hills Solar Electric Generating System
11-AFC-2**

October 3, 2011

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/13/11

Technical Area: **Air Quality**

Project: Hidden Hills Solar Electric Generating System (HHSEGS)

Technical Staff: Jacquelyn Leyva

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Gerry Bemis

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.1 pp. 5.1-1 to 5.1-72	Yes	
Appendix B (g) (8) (A)	The information necessary for the air pollution control district where the project is located to complete a Determination of Compliance.	Not Provided <u>GBUAPCD Permit Application Completeness Letter received 11/09/11</u>	No <u>Yes</u>	Please provide the permit application completeness letter from the Great Basin Unified Air Pollution Control District (GBUAPD). This letter is expected on early part of September.
Appendix B (g) (8) (B)	The heating value and chemical characteristics of the proposed fuels, the stack height and diameter, the exhaust velocity and temperature, the heat rate and the expected capacity factor of the proposed facility.	Section 5.5 Table 5.5-2 to 5.5-4 pp. 5.5-10 to 5.5-12 Section 5.1.4.1.1 Tables 5.1-15 and 5.1-16 p. 5.1-33 Appendix Section 5.1D	Yes	
Appendix B (g) (8) (C)	A description of the control technologies proposed to limit the emission of criteria pollutants.	Section 5.1.4.11 Table 5.1-15 p. 5.1-33 Appendix 5.1C	Yes	
Appendix B (g) (8) (D)	A description of the cooling system, the estimated cooling tower drift rate, the rate of water flow through the cooling tower, and the maximum concentrations of total dissolved solids.	Section 5.1.4.3.2 p. 5.1-42 Section 5.1.6.3 Table 5.1-42 p. 5.1-69 Appendix 5.1B Table 5.1B-10 p. 5.1B-10	Yes	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**Revision No. 1 Date 9/13/11Technical Area: **Air Quality**Project: Hidden Hills Solar Electric Generating System (HHSEGS)Technical Staff: Jacquelyn LeyvaProject Manager: Mike MonasmithDocket: 11-AFC-2Technical Senior: Gerry Bemis

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (8) (E)	The emission rates of criteria pollutants and greenhouse gases (CO ₂ , CH ₄ , N ₂ O, and SF ₆) from the stack, cooling towers, fuels and materials handling processes, delivery and storage systems, and from all on-site secondary emission sources.	Section 5.1.4.3.5 Table 5.1-28 p. 5.1-44 and 5.1-45 Section 5.1.5.3 Table 5.1-39 pp. 5.1-64 and 5.1-65	Yes	
Appendix B (g) (8) (F)(i)	A description of typical operational modes, and start-up and shutdown modes for the proposed project, including the estimated frequency of occurrence and duration of each mode, and estimated emission rate for each criteria pollutant during each mode.	Section 5.1.4.2 pp. 5.1-36 to 5.1-43 Section 5.1.4.5.7 p. 5.1-57 Table 5.1-36 to 5.1-37 pp. 5.1-57 to 5.1-60 Appendix 5.1B	Yes	
Appendix B (g) (8) (F)(ii)	A description of the project's planned initial commissioning phase, which is the phase between the first firing of emissions sources and the commercial operations date, including the types and durations of equipment tests, criteria pollutant emissions, and monitoring techniques to be used during such tests.	NA	NA	
Appendix B (g) (8) (G)	The ambient concentrations of all criteria pollutants for the previous three years as measured at the three Air Resources Board certified monitoring stations located closest to the project site, and an analysis of whether this data is representative of conditions at the project site. The applicant may substitute an explanation as to why information from one, two, or all stations is either not available or unnecessary.	Section 5.1.3 Sub Section 5.1.3.4 Tables 5.1-6 to 5.1-14 pp.5.1-23 to 5.1-31	Yes	
Appendix B (g) (8) (H)	One year of meteorological data collected from either the Federal Aviation Administration Class 1 station nearest to the project or from the project site, or meteorological data approved by the California Air Resources Board or the local air pollution control district.	Air Quality Modeling CD	Yes	

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Appendix B (g) (8) (H) (i)	If the data is collected from the project site, the applicant shall demonstrate compliance with the requirements of the U.S. Environmental Protection Agency document entitled "On-Site Meteorological Program Guidance for Regulatory Modeling Applications" (EPA - 450/4-87-013 (August 1995)), which is incorporated by reference in its entirety.	NA	NA	
Appendix B (g) (8) (H) (ii)	The data shall include quarterly wind tables and wind roses, ambient temperatures, relative humidity, stability and mixing heights, upper atmospheric air data, and an analysis of whether this data is representative of conditions at the project site.	Section 5.1.4.5.2 pp. 5.1-51 to 5.1-55 Appendix 5.1A pp. 5.1A-1 to 5.1A-50 Figures 5.1-1 to 5.1-5 Air Quality Modeling CD	Yes	
Appendix B (g) (8) (I)	An evaluation of the project's direct and cumulative air quality impacts, consisting of the following:	Section 5.1.5 Appendix 5.1G	Yes	
Appendix B (g) (8) (I) (i)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant impacts of project construction activities on ambient air quality conditions, including fugitive dust (PM ₁₀) emissions from grading, excavation and site disturbance, as well as the combustion emissions [nitrogen oxides (NO _x), sulfur dioxide (SO ₂), carbon monoxide (CO), and particulate matter less than 10 microns in diameter (PM ₁₀) and particulate matter less than 2.5 microns in diameter (PM _{2.5})] from construction-related equipment;	Section 2.0 Section 5.1.4.3.8 Appendix 5.1F Air Quality Modeling CD	Yes	

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Appendix B (g) (8) (I) (ii)	A screening level air quality modeling analysis, or a more detailed modeling analysis if so desired by the applicant, of the direct criteria pollutant (NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5}) impacts on ambient air quality conditions of the project during typical (normal) operation, and during shutdown and startup modes of operation. Identify and include in the modeling of each operating mode the estimated maximum emissions rates and the assumed meteorological conditions;	Air Quality Modeling CD Appendix 5.1H	Yes	
Appendix B (g) (8) (I) (iii)	A protocol for a cumulative air quality modeling impacts analysis of the project's typical operating mode in combination with other stationary emissions sources within a six mile radius which have received construction permits but are not yet operational, or are in the permitting process. The cumulative inert pollutant impact analysis should assess whether estimated emissions concentrations will cause or contribute to a violation of any ambient air quality standard; and	Section 5.1.5 Appendix 5.1G	Yes	
Appendix B (g) (8) (I) (iv)	An air dispersion modeling analysis of the impacts of the initial commissioning phase emissions on state and federal ambient air quality standards for NO _x , SO ₂ , CO, PM ₁₀ , and PM _{2.5} .	NA	NA	
Appendix B (g) (8) (J)	If an emission offset strategy is proposed to mitigate the project's impacts under subsection (g)(1), provide the following information:	NA	NA	

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Appendix B (g) (8) (J) (i)	The quantity of offsets or emission reductions that are needed to satisfy air permitting requirements of local permitting agencies (such as the air district), state and federal oversight air agencies, and the California Energy Commission. Identify by criteria air pollutant, and if appropriate, greenhouse gas; and	NA	NA	
Appendix B (g) (8) (J) (ii)	Potential offset sources, including location, and quantity of emission reductions;	NA	NA	
Appendix B (g) (8) (K)	A detailed description of the mitigation, if any, which an applicant may propose, for all projects impacts from criteria pollutants that currently exceed state or federal ambient air quality standards, but are not subject to offset requirements under the district's new source review rule.	Section 5.1.7	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.1.2 Section 5.1.6 Table 5.1-3	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.1.8 p. 5.1-72 Table 5.1-44	Yes	

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Technical Area: **Air Quality** Project: Hidden Hills Solar Electric Generating System (HHSEGS) Technical Staff: Jacquelyn Leyva

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DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/13/11

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.1.8 p. 5.1-72 Table 5.1-44	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.1.9 p. 5.1-72	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 2 Date 9/16/2011

Technical Area: Biological Resources

Project: Hidden Hills Solar

Technical Staff: A. Golden & J. Nishida

Project Manager:	Mike Monasmith
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Docket: Docket Number 11-AFC-02

Technical Senior:	Rick York
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Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	<p>Existing site conditions: Section 5.2.1.1</p> <p>Direct, indirect, and cumulative impacts: Sections 5.2.7 and 5.2.8</p> <p>Mitigation measures: Section 5.2.9</p> <p>Monitoring plans: Sections 5.2.9.1, 5.2.9.3, and Appendix 5.2I</p>	<p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p>	
Appendix B (g) (13) (A)	A regional overview and discussion of terrestrial and aquatic biological resources, with particular attention to sensitive biological resources within ten (10) miles of the project. Include a map at a scale of 1:100,000 (or other suitable scale) showing sensitive biological resource location(s) in relation to the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. Sensitive biological resources include the following:	<p>Regional overview: Sections 5.2.1.1 and 5.2.6; Appendices 5.2D, 5.2F, and 5.2H</p> <p>Regional vicinity maps: Figures 5.2-1 and 5.2-2; Appendices 5.2D Figure 1 and 5.2F Figures 2 and 3, <u>AFC Supplement Figures 5.2-1 and 5.2-2</u> <u>SUPPLEMENT B</u></p>	<p>No</p> <p><u>Yes</u></p>	Please provide a map at 1:100,000 scale of sensitive biological resources within 10 miles of the project site and related facilities and any boundaries of a local Habitat Conservation Plan or similar open space land use plan or designation. <u>Please provide the following information for a regional overview map: NEMO regional management layers, Clark County HCP layer, the Nopah Wilderness Area, South Nopah Wilderness Area, and Pahrump Wilderness Area.</u>

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Revision No. 2 Date 9/16/2011

Technical Area: **Biological Resources**

Project: Hidden Hills Solar

Technical Staff: A. Golden & J. Nishida

Project Manager: Mike Monasmith

Docket: Docket Number 11-AFC-02

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (A) (i)	species listed under state or federal Endangered Species Acts;	Federal and State Endangered Species: Tables 5.2-2 and 5.2-7 Sections 5.2.2.1 and 5.2.6.7; Appendices 5.2B and 5.2G	Yes	
Appendix B (g) (13) (A) (ii)	resources defined in sections 1702(q) and (v) of Title 20 of the California Code of Regulations;	Areas of critical concern and species of special concern: Tables 5.2-2 and 5.2-7 Sections 5.2.1.1, 5.2.2.2, 5.2.3.1.7, and 5.2.7.9	Yes	
Appendix B (g) (13) (A) (iii)	species identified as state Fully Protected;	State Fully Protected species: Table 5.2.7 Section 5.2.6.7	Yes	
Appendix B (g) (13) (A) (iv)	species covered by Migratory Bird Treaty Act;	Migratory Bird Act species: Tables 5.2-7, 5.2-8, and 5.2-12	Yes	
Appendix B (g) (13) (A) (v)	species and habitats identified by local, state, and federal agencies as needing protection, including but not limited to those identified by the California Natural Diversity Database, or where applicable, in Local Coastal Programs or in relevant decisions of the California Coastal Commission; and	Species and habitats identified in the California Natural Diversity Database: Sections 5.2.2.3, 5.2.6.3, Figure 5.2-3, Appendix 5.2E	No <u>Yes</u>	Please contact California Department of Fish and Game (CDFG) regarding delineation of state waters. Discuss the potential impacts to state waters. Please provide a copy of any record of conversation and/or letter the applicant has sent to CDFG regarding the proposed project's impacts to state waters and any response to these communications.

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Appendix B (g) (13) (A) (vi)	fish and wildlife species that have commercial and/or recreational value.	Fish and wildlife of commercial or recreational value: Not applicable	N/A	
Appendix B (g) (13) (B)	Include a list of the species actually observed and those with a potential to occur within 1 mile of the project site and 1,000 feet from the outer edge of linear facility corridors. Maps or aerial photographs shall include the following:	List of species observed: Tables 5.2-2 through 5.2-5, 5.2-7 through 5.2-12	Yes	
Appendix B (g) (13) (B) (i)	Detailed maps at a scale of 1:6,000 or color aerial photographs taken at a recommended scale of 1 inch equals 500 feet (1:6,000) with a 30 percent overlap that show the proposed project site and related facilities, biological resources including, but not limited to, those found during project-related field surveys and in records from the California Natural Diversity Database, and the associated areas where biological surveys were conducted. Label the biological resources and survey areas as well as the project facilities;	Maps of proposed project site: Figures 5.2-5a and 2.1-2 Maps of biological resources: Figures 5.2-1, 5.2-2, 5.2-5a through 5.2-5g, 5.2-6a through 5.2-6i, 5.2-7 through 5.2-12 Map of survey area: Figure 5.2-3	Yes	
Appendix B (g) (13) (B) (ii)	A depiction of the extent of the thermal plume at the surface of the water if cooling water is proposed to be discharged to a water source. Provide the location for the intake and discharge structures on an aerial photograph(s) or detailed maps. Water sources include, but are not limited to, waterways, lakes, impoundments, oceans, bays, rivers, and estuaries; and	Depiction of the thermal plume: Not applicable Location of intake and discharge structures: Not applicable	N/A N/A	

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Appendix B (g) (13) (B) (iii)	An aerial photo or wetlands delineation maps at a scale of (1:2,400) showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers (USACE) Section 404 Permit application. For projects proposed to be located within the coastal zone, also provide aerial photographs or maps as described above that identify wetlands as defined by the Coastal Act.	<p>Potential jurisdictional or non-jurisdictional wetlands map: <u>Figure 5.2-12</u> <u>Attachment BR-1 did not show any potential jurisdictional or nonjurisdictional features delineated out to 250 feet beyond the project boundary.</u></p> <p><u>SUPPLEMENT B</u></p> <p>Coastal zone wetlands map: Not applicable</p>	<p>No YES</p> <p>N/A</p>	Please provide maps a scale of 1:2,400 showing any potential jurisdictional and non-jurisdictional wetlands delineated out to 250 feet from the edge of disturbance if wetlands occur within 250 feet of the project site and/or related facilities that would be included with the US Army Corps of Engineers (USACE) Section 404 Permit application. <u>Provide an aerial photos or wetland delineation maps of jurisdictional and nonjurisdictional waters of the U.S. that occur beyond the project site to conform to the delineation out to the 250 foot buffer beyond the project boundary.</u>
Appendix B (g) (13) (C)	A discussion of the biological resources at the proposed project site and related facilities. Related facilities include, but are not limited to, laydown and parking areas, gas and water supply pipelines, transmission lines, and roads. The discussion shall address the distribution of vegetation community types, denning or nesting sites, population concentrations, migration corridors, breeding habitats, and other appropriate biological resources including the following:	<p>Discussion of biological resources at project site: Section 5.2.6; Appendices 5.2D and 5.2F; Figures 5.2-5a through 5.2-5i, 5.2-6a through 5.2-6i, 5.2-7, 5.2-8, 5.2-10 through 5.2-12</p> <p>Discussion of biological resources at related facilities: Section 5.2.6; Appendices 5.2D and 5.2F; Figures 5.2-5a through 5.2-5i, 5.2-6a through 5.2-6i, 5.2-7, 5.2-8, 5.2-10 through 5.2-12</p>	<p>Yes</p> <p>Yes</p>	

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Appendix B (g) (13) (C) (i)	A list of all the species actually observed;	List of species observed: Tables 5.2-3, 5.2-4, 5.2-8, 5.2-10 through 5.2-13	Yes	
Appendix B (g) (13) (C) (ii)	A list of sensitive species and habitats with a potential to occur (as defined in (A) above); and	Sensitive species and habitats with potential to occur: Tables 5.2-2, 5.2-7, and 5.2-11	Yes	
Appendix B (g) (13) (C) (iii)	If cooling water is taken directly from or discharged to a surface water feature source, include a description of the intake structure, screens, water volume, intake velocity hydraulic zone field of influence, and the thermal plume dispersion area as depicted in response to B(ii) above. Describe the thermal plume size and dispersion under high and low tides, and in response to local currents and seasonal changes. Provide a discussion of the aquatic habitats, biological resources, and critical life stages found in these affected waters. For repower projects that anticipate no change in cooling water flow, this information shall be provided in the form of the most recent federal Clean Water Act 316(a) and (b) studies of entrainment and impingement impacts that has been completed within the last five (5) years. For new projects or repower projects proposing to use once-through cooling and anticipating an increase in cooling water flow, provide a complete impingement and entrainment analysis per guidance in (D)(ii), below.	Intake structure characteristics: Not applicable Thermal plume description: Not applicable Aquatic habitat and biological resources affected: Not applicable Impingement and entrainment analysis: Not applicable	N/A N/A N/A N/A	

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Appendix B (g) (13) (D)	A description and results of all field studies and seasonal surveys used to provide biological baseline information about the project site and associated facilities. Include copies of the California Natural Diversity Database records and field survey forms completed by the applicant's biologist(s). Identify the date(s) the surveys were completed, methods used to complete the surveys, and the name(s) and qualifications of the biologists conducting the surveys. Include:	Description of field studies: Sections 5.2.5 and 5.2.6; Appendices 5.2D, 5.2F, and 5.2H	Yes	
		Copies of CNDDDB records and field survey forms: <u>Attachment BR-2</u> <u>SUPPLEMENT B</u>	No <u>YES</u>	Have UTM coordinates for sensitive species encountered in Appendix 5.2F. Please provide verification that field forms and maps have been provided to the CNDDDB. Please provide copies of the CNDDDB field survey forms for sensitive species occurrences found during surveys. Also include CNDDDB field forms for the Nye milkvetch (<i>Astragalus nyensis</i>) since this species is new to California.
		Qualifications of biologists: Appendices 5.2A and 5.2C <u>Attachment BR-3</u>	No <u>Yes</u>	Missing resumes of Christine Stirling, Mercy Vaughn, Steve Boland, and Dan Williams and any other biologist(s) that worked on the avian point count surveys whose resumes were not included the AFC.

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Appendix B (g) (13) (D) (i)	Current biological resources surveys conducted using appropriate field survey protocols during the appropriate season(s). State and federal agencies with jurisdiction shall be consulted for field survey protocol guidance prior to surveys if a protocol exists;	Current biological surveys: Sections 5.2.5.5, 5.2.5.6, 5.2.6; Appendices 5.2D, 5.2F, and 5.2H <u>Attachment BR-4</u> <u>SUPPLEMENT B</u>	No <u>YES</u>	<u>Regarding golden eagle, Attachment BR-4 provides an explanation from CDFG BHS biologist (Jeff Villepique) on conflicts with eagle helicopter surveys and bighorn sheep lambing season; however, contact with USFWS Migratory Bird Program staff, the primary federal agency regulating eagle surveys and permitting, was not provided in this attachment of the Supplement. Since submitting the Supplement, the applicant did contact and provide a record of conversation with USFWS Regional Eagle Permit Biologist (Heather Beeler, dated Sept 7, 2011). Protocol surveys were not conducted for western burrowing owl and golden eagle. Please follow survey protocol guidance from Pagel 2010 for golden eagle and California Burrowing Owl Consortium 1993 for western burrowing owl. Regarding burrowing owl, the applicant performed owl surveys concurrently with desert tortoise surveys, but did not provide any data that Phase II or Phase III surveys were performed (CBOC 1993). Please provide field survey data forms for burrowing owl surveys have been conducted to date; include specific survey dates and times surveys were conducted on these forms. Please provide an assessment of potential impacts to roosting and foraging habitat for bats. Subsequent golden eagle surveys will be requested during Data Discovery phase in order to conform to the federal survey protocol (Pagel et al. 2010). Burrowing owl surveys may also be requested during Data Discovery. Please also contact USFWS BHS biologists for CA and NV for their input on golden eagle survey protocol guidance in relation to timing with BHS lambing season and provide record of conversation.</u>

Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 2 Date 9/16/2011

Technical Area: Biological Resources

Project: Hidden Hills Solar

Technical Staff: A. Golden & J. Nishida

Project Manager: Mike Monasmith

Docket: Docket Number 11-AFC-02

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (D) (ii)	If cooling water is proposed to be taken directly from or discharged to a surface water feature source, seasonal aquatic resource studies and surveys shall be conducted. Aquatic resource survey data shall include, but is not limited to, fish trawls, ichthyoplankton and benthic sampling, and related temperature and water quality samples. For new projects or repower projects anticipating a change in cooling water flows, sampling protocols shall be provided to the Energy Commission staff for review and concurrence prior to the start of sampling. For repower projects not anticipating a change in cooling water flows, this information shall be provided in the form of the most recent federal Clean Water Act 316(b) impingement and entrainment impact study completed within five (5) years of the AFC filing date; and	Aquatic resource studies and surveys: Not applicable Aquatic resource survey data or impingement and entrainment impact study: Not applicable	N/A N/A	
Appendix B (g) (13) (D) (iii)	If the project or any related facilities could impact a jurisdictional or non-jurisdictional wetland, provide completed Army Corps of Engineers wetland delineation forms and/or determination of wetland status pursuant to Coastal Act requirements, name(s) and qualifications of biologist(s) completing the delineation, the results of the delineation and a table showing wetland acreage amounts to be impacted.	Impacts to jurisdictional or non-jurisdictional wetlands: Not applicable	N/A	
Appendix B (g) (13) (E)	Impacts discussion of the following:			

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 2 Date 9/16/2011

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Project: Hidden Hills Solar

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Project Manager: Mike Monasmith

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (E) (i)	all impacts (direct, indirect, and cumulative) to biological resources from project site preparation, construction activities, plant operation, maintenance, and closure.	Project site impacts: Section 5.2.7 Sections 5.2.2, 5.2.5, and 5.2.6 Section 5.2.8 In the Supplement for Hidden Hills 5.2 No. 6, staff was directed to AFC Sections 5.2.2, 5.2.5, 5.2.6, 5.2.7, and 5.2.8. There was no discussion regarding impacts in AFC Sections 5.2.2, 5.2.5, and 5.2.6. Sections 5.2.2 and 5.2.6 discussed only the results of the field efforts. Section 5.2.5 only discussed data collection and survey methods. There is still no discussion regarding impacts to special status plants, desert kit fox, and state waters.	No <u>YES</u>	Please provide a discussion of potential impacts to biological resources from plant closure. Please address the project's impacts to the following biological resources: special status plant species, Nelson's bighorn sheep spring foraging habitat, desert kit fox, golden eagle, and special status bats, state waters, and the effects of the power tower and other structures to avian species. Please include a discussion on the project's direct, indirect, and cumulative impacts from project site preparation, construction activities, plant operation, maintenance, and closure to <u>special-status plant species, desert kit fox and state waters since they were not addressed in the AFC or supplement. Include a discussion of impacts of the storm water management system on state waters.</u>
	Discussion shall also address sensitive species habitat impacts from cooling tower drift and air emissions;	Air emission impacts on sensitive species habitat: <u>Supplement 5.2 6b</u>	No <u>Yes</u>	Please provide a discussion of potential impacts of dust and nitrogen deposition on sensitive species habitat.

Adequacy Issue:

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Revision No. 2 Date 9/16/2011

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Project Manager: Mike Monasmith

Docket: Docket Number 11-AFC-02

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (E) (ii)	facilities that propose to take water directly from, and/or discharge water to surface water features, daytime and nighttime impacts from the intake and discharge of water during operation, water velocity at the intake screen, the intake field of influence, impingement, entrainment, and thermal discharge. Provide a discussion of the extent of the thermal plume, effluent chemicals, oxygen saturation, intake pump operations, and the volume and rate of cooling water flow at the intake and discharge location; and	Intake impacts: Not applicable Thermal plume impacts: Not applicable	N/A N/A	
Appendix B (g) (13) (E) (iii)	Methods to control biofouling and chemical concentrations, and temperatures that are currently being discharged or will be discharged to receiving waters.	Biofouling and chemical concentration controls: Not applicable Discharge temperatures: Not applicable	N/A N/A	
Appendix B (g) (13) (F)	A discussion of all feasible mitigation measures including, but not limited to the following:			
Appendix B (g) (13) (F) (i)	All measures proposed to avoid and/or reduce adverse impacts to biological resources;	Avoidance and minimization: Section 5.2.9	Yes	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 2 Date 9/16/2011

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (F) (ii)	All off-site habitat mitigation and habitat improvement or compensation, and an identification of contacts for compensation habitat and management;	<p>Habitat mitigation: Section 5.2.9.2.1 <u>Supplement for Hidden Hills 5.2 No. 7. Before mitigation can be discussed, direct, indirect, and cumulative impacts from the project on biological resources must be discussed. There was no discussion on impacts to special-status plants, desert kit fox, and state waters.</u></p> <p><u>SUPPLEMENT B</u></p> <p>Contacts for compensation habitat:</p>	<p>No <u>YES</u></p> <p>No <u>YES</u></p>	<p>Only addresses desert tortoise. Please provide a discussion of the need for compensatory mitigation regarding western burrowing owl, special-status plants, Nelson's bighorn sheep foraging habitat, desert kit fox, golden eagle foraging habitat, special-status bats, and state waters.</p> <p><u>Please address compensatory mitigation necessary to lessen the project's impacts to biological resources to less-than-significant levels.</u></p> <p><u>As most of the special-status plants are at least a CNPS List 2 and one is a List 1B, compensatory mitigation needs to be discussed as avoidance and minimization measures may not lessen impacts to less-than-significant levels.</u></p> <p><u>As state waters will be impacted by construction of the power blocks, switchyard, buildings, and storm water management system, please address compensatory mitigation necessary to lessen impacts to state waters to less-than-significant levels.</u></p> <p><u>Please contact and identify USFWS and CDFG personnel regarding compensatory mitigation.</u></p>
Appendix B (g) (13) (F) (iii)	Design features to better disperse or eliminate a thermal discharge;	<p>Design features to eliminate thermal discharge: Not applicable</p>	N/A	

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Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 2 Date 9/16/2011

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (13) (F) (iv)	All measures proposed to avoid or minimize adverse impacts of cooling water intake. This shall include a Best Technology Available (BTA) discussion. If BTA is not being proposed, the rationale for not selecting BTA must be provided; and	Measures to minimize impacts of cooling water intake: Not applicable	N/A	
Appendix B (g) (13) (F) (v)	Educational programs to enhance employee awareness during construction and operation to protect biological resources.	Employee biological resource awareness training: Section 5.2.9.1	Yes	
Appendix B (g) (13) (G)	A discussion of compliance and monitoring programs to ensure the effectiveness of impact avoidance and mitigation measures incorporated into the project.	Monitoring compliance effectiveness: <u>The AFC and Supplement have still not addressed compliance and monitoring programs.</u>	No <u>YES</u>	Please provide a discussion of proposed mitigation effectiveness monitoring for desert tortoise, western burrowing owl, special-status plants, Nelson's bighorn sheep foraging habitat, kit fox, golden eagle foraging habitat, special status bats, state waters, and impacts to avian species from the power tower and other structures. <u>For special-status plants, please provide a description of potential mitigation measures that may be considered to protect these plant species and monitoring plans to help determine if the mitigation is successful.</u>

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 2 Date 9/16/2011

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Project Manager: Mike Monasmith

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Appendix B (g) (13) (H)	Submit copies of any preliminary correspondence between the project applicant and state and federal resource agencies regarding whether federal or state permits from other agencies such as the U. S. Fish and Wildlife Service (USFWS), the National Marine Fisheries Service (NMFS), the U.S. Army Corps of Engineers (USACE), the California Department of Fish and Game (CDFG), and the Regional Water Quality Control Board (RWCB) will be required for the proposed project.	Contact with state and federal agencies regarding permits: Table 5.2-16	No <u>YES</u>	Please contact CDFG field office in Bishop regarding <u>the need for a Lake and Streambed Alteration Agreement and 2081 permit (but for the exclusive authority of the Energy Commission)</u> and the Ventura Field Office for the USFWS regarding <u>the need for</u> Section 7 consultation <u>for the project which occurs in California. Provide record of conversation with the appropriate CDFG LSAA staff regarding regional mapping methods and criteria for state waters.</u> Please provide a copy of any record of conversation and/or letter the applicant has sent to these agencies regarding the proposed project and any response to these communications.
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	TABLE IDENTIFYING APPLICABLE BIOLOGICAL RESOURCES LAWS, ORDINANCES, REGULATIONS, AND STANDARDS: Table 5.2-1	YES	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	TABLES IDENTIFYING AGENCIES WITH JURISDICTION: Table 5.2-14	YES	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 2 Date 9/16/2011

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Docket: Docket Number 11-AFC-02

Technical Senior: Rick York

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	AGENCY CONTACT INFORMATION: Table 5.2-14 <u>SUPPLEMENT B</u>	NO <u>YES</u>	PLEASE UPDATE TABLE 5.2-14 TO INCLUDE CDFG <u>BISHOP FIELD OFFICE CONTACT FOR THE PROJECT, (WENDY CAMPBELL, 760-872-1171)</u> AND PROVIDE USFWS VENTURA FIELD OFFICE <u>BIOLOGIST CONTACTS FOR THE PROJECT. PLEASE INCLUDE USFWS PERSONNEL WHO WORK ON GOLDEN EAGLE, BIG HORN SHEEP, AND MIGRATORY BIRD ISSUES.</u>
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Permit schedule: Table 5.2-16	Yes	

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 2 Date 10/3/11

Technical Area: **Cultural Resources**

Project: Hidden Hills (HHSEGS)

Technical Staff: Kathleen Forrest

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Shaelyn Strattan

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.3 Impacts 5.3.5, pp. 5.3-31–32 Mitigation 5.3.6, pp. 5.3-32–34	Yes	
Appendix B (g) (2) (A)	A summary of the ethnology, prehistory, and history of the region with emphasis on the area within no more than a 5-mile radius of the project location.	Section 5.3.3, pp. 5.3-9–21; AFC, supp. B, pp. 19–37.	No <u>Yes</u>	Prehistory: The synthesis of the general prehistory of the Mojave Desert as a whole is sufficient as a broad introduction to the archaeology of the project area, but is insufficient to underpin the development of any research model for the pedestrian survey of the project area or as a useful context to facilitate in the interpretation of the survey results. Using the Mojave Desert prehistory as a springboard and using the cultural resources technical reports and site forms that were gathered for the appendices of the AFC, please develop a discussion of the prehistoric archaeology of the immediate project area vicinity. Explain what the archaeology looks like on the ground in the vicinity of the project area. <u>Ethnology:</u> The profiling meeting held on August 2 with the local Native American groups, specifically the Pahrump Band of Paiute and Las Vegas Paiute Tribe, clearly indicated a spiritual connection with the Pahrump Valley and the project site. The tribal members present indicated that different bands of Paiute have traditionally utilized the area, and the AFC indicates other groups were also utilizing the

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DATA ADEQUACY WORKSHEET

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
				area. The ethnology needs to consider (a) the use of the area by each group individually; (b) how the different groups may have interrelated; (c) how the land was being used (resource identification and utilization) and what the physical manifestations of these uses may have been or are; and (d) the religious/spiritual significance of the project site and Pahrump Valley (immediate region) to the various peoples using it. The tribal members present also indicated that burials or cremations are present; a discussion of the local Native American traditions for the disposal of the dead and likely physical remains needs to be included. Additional discussion of how the project may impact the areas in proximity to, but outside the footprint of the project site, areas that have been used traditionally by the various groups, also needs to be included.
Appendix B (g) (2) (B)	<p>The results of a literature search to identify cultural resources within an area not less than a 1-mile radius around the project site and not less than one-quarter (0.25) mile on each side of the linear facilities. Identify any cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. Literature searches to identify the above cultural resources must be completed by, or under the direction of, individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed.</p> <p>Copies of California Department of Parks and Recreation (DPR) 523 forms (Title 14 CCR §4853) shall be provided for all cultural resources (ethnographic, architectural, historical, and archaeological) identified in the</p>	<p>Literature search 5.3.3.6.1 pp. 5.3-22-24</p> <p>Cultural resources listed pursuant to ordinance by a city or county, or recognized by any local historical or archaeological society or museum. <u>AFC, supp. [A], pp. 19-21.</u></p> <p>DPR forms Appendix 5.3B, Appendix B</p> <p>USGS 7.5' quad map of literature search results</p>	<p>Yes</p> <p>No <u>Yes</u></p> <p>Yes</p> <p>Yes</p>	<p>Include discussion of any official listing or register of cultural resources, or contact with the county regarding this issue. Also include a discussion of the Old Spanish Trail Association's status and interpretation of the section of the Old Spanish Trail adjacent to the project area.</p>

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Docket: 11-AFC-2

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	literature search as being 45 years or older or of exceptional importance as defined in the National Register Bulletin Guidelines, (36CFR60.4(g)). A copy of the USGS 7.5' quadrangle map of the literature search area delineating the areas of all past surveys and noting the California Historical Resources Information System (CHRIS) identifying number shall be provided. Copies also shall be provided of all technical reports whose survey coverage is wholly or partly within .25 mile of the area surveyed for the project under Section (g)(2)(C), or which report on any archaeological excavations or architectural surveys within the literature search area.	Appendix 5.3B, Appendix C Copies of technical reports Appendix 5.3C	Yes	
Appendix B (g) (2) (C)	The results of new surveys or surveys less than 5 years old shall be provided if survey records of the area potentially affected by the project are more than five (5) years old. Surveys to identify new cultural resources must be completed by (or under the direction of) individuals who meet the Secretary of the Interior's Professional Standards for the technical area addressed. New pedestrian archaeological surveys shall be conducted inclusive of the project site and project linear facility routes, extending to no less than 200' around the project site, substations and staging areas, and to no less than 50' to either side of the right-of-way of project linear facility routes. New historic architecture field surveys in rural areas shall be conducted inclusive of the project site and the project linear facility routes, extending no less than .5 mile out from the proposed plant site and from the routes of all above-ground linear facilities. New historic architecture field surveys in urban	New surveys 5.3.3.6.2 New pedestrian archaeological surveys of project site 5.3.3.6.2, pp. 5.3-24–30 Survey of project linear facility routes Historic architecture surveys	Yes Yes N/A N/A	

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DATA ADEQUACY WORKSHEET

Revision No. 2 Date 10/3/11

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Docket: 11-AFC-2

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
	<p>and suburban areas shall be conducted inclusive of the project site, extending no less than one parcel's distance from all proposed plant site boundaries. New historic architecture field reconnaissance ("windshield survey") in urban and suburban areas shall be conducted along the routes of all linear facilities to identify, inventory, and characterize structures and districts that appear to be older than 45 years or that are exceptionally significant, whatever their age.</p> <p>A technical report of the results of the new surveys, conforming to the Archaeological Resource Management Report format (CA Office of Historic Preservation Feb 1990), which is incorporated by reference, shall be separately provided and submitted (under confidential cover if archaeological site locations are included).</p>	Appendix 5.3B; AFC, supp. B, pp. 38-60.	No <u>Yes</u>	<p>Include the research design for the project, including the theoretical basis of the proposed research, a summary of the previous research, testable hypotheses/research goals, and discussion of the test implications of the expected archaeological information, as specified in ARMIR (p.27). Also discuss the results of the investigations as they relate to specific research design items and general objectives.</p>
Appendix B (g) (2) (C) cont.	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information (archaeological sites or areas of religious significance) shall be submitted under a request for confidentiality pursuant to Title 20, California Code of Regulations, § 2501 et seq. At a minimum, <u>the technical report shall include the following:</u>	Information included in the technical report shall also be provided in the Application for Certification, except that confidential information. <u>Section 5.3 AFC, supp. B, p. 60.</u>	No <u>Yes</u>	<u>See items above (Appendix B (g) (2) (A); Appendix B (g) (2) (B); Appendix B (g) (2) (C))</u>
Appendix B (g) (2) (C) (i)	The summary from Appendix B (g)(2)(A) and the literature search results from Appendix B (g)(2)(B);	Appendix 5.3B, Report of Findings and Archival Research	Yes	
Appendix B	The survey procedures and methodology used	Appendix 5.3B, Report of	No <u>Yes</u>	It is not clearly evident in the cultural resources

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 2 Date 10/3/11

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Docket: 11-AFC-2

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
(g) (2) (C) (ii)	to identify cultural resources and a discussion of the cultural resources identified by the survey;	Findings and Field Survey; AFC, supp. [A], pp. 22 and 23.		<p>technical report or in the images of the cultural resources on the DPR 523 site forms how the term "desert pavement" has been defined or is being used. Staff has not traversed the project area as extensively as have the cultural resources consultants to the applicant, but on the three field visits that staff has made to the project area staff has not seen any examples of a classic desert pavement. Please identify the landforms that make up the area, the age and the depositional history of those landforms, and the character of the surficial attributes of the landforms, attributes such as desert pavements.</p> <p>Assuming that desert pavements do exist in the project area, research potential may, nonetheless, exist at these lithic extraction sites in terms of addressing research questions pertaining to modes of lithic procurement and patterns of regional settlement in the Mojave Desert (see, for instance, Giambastiani 2006, 2009; Giambastiani and Basgall 1999; and Giambastiani et al. 2009). The answers to such research questions would not necessarily rely on the presence of deeply buried/stratified deposits, but rather would rely on more intensive analyses of surface and relatively shallow subsurface lithic reduction materials. Each lithic extraction area or isolated Segregated Reduction Loci (SRL) feature may not necessarily have individual value in terms of contributions to Mojave Desert prehistory. They may have more significance when the implications from a lithic extraction area are examined within a group of similar sites, located either on a specific landform or across a series of comparable landscapes (broader, multiple-property resources such as archaeological districts or landscapes, or</p>

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DATA ADEQUACY WORKSHEET

Revision No. 2 Date 10/3/11

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SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
				portions thereof). Discuss in detail why the sites on the project site, many of which are noted to have no additional research potential due to the presence of desert pavement, would or would not contribute to the research questions above. If the applicant decides to reconsider the position about the research potential of desert pavement lithic extraction sites, please determine which of the data sets from the subject sites may be germane and re-evaluate those sites in light of the new information.
Appendix B (g) (2) (C) (iii)	Copies of all new and updated DPR 523(A) forms. If a cultural resource may be impacted by the project, also include the appropriate DPR 523 detail form for each such resource;	Appendix 5.3B, Appendix B; AFC, supp. B, pp. 60–77. [Focal point of evaluation discussion became app. B(g)(2)(E)(i).]	No <u>Yes</u>	Include evaluations for each resource, including whether a resource is eligible for the California Register of Historical Resources (CRHR) or eligible for listing or listed in a local register, as stated in Section 15064.5 of the CEQA Guidelines. Include a discussion of how it does/doesn't meet each criteria and a discussion of the integrity of the resource. Also include the photographs noted in the included photograph logs.
Appendix B (g) (2) (C) (iv)	A map at a scale of 1:24,000 U.S. Geological Survey quadrangle depicting the locations of all previously known and newly identified cultural resources compiled through the research required by Appendix B (g)(2)(B) and Appendix B (g)(2)(C) (ii); and	Appendix 5.3B, Appendix A and Appendix 5.3E	Yes	
Appendix B (g) (2) (C) (v)	The names and qualifications of the cultural resources specialists who contributed to and were responsible for literature searches, surveys, and preparation of the technical report.	Appendix 5.3D AFC, supp. [A], att. CR-1.	No <u>Yes</u>	Include the resumes for Gabriel DuPree, Dan Ewers, Eric Peters, Dmitra Chase, Ryan Rolston, Kurt Lambert, Erica Maier, Eric Hall, Humphrey Calicher, Jesse Shelmine
Appendix B	Provide a copy of your request to the Native	Appendix 5.3A	Yes	

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DATA ADEQUACY WORKSHEET

Revision No. 2 Date 10/3/11

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Technical Senior: Shaelyn Strattan

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
(g) (2) (D)	American Heritage Commission (NAHC) for information on Native American sacred sites and lists of Native Americans interested in the project vicinity, and copies of any correspondence received from the NAHC. Notify the Native Americans on the NAHC list about the project, including a project description and map. Provide a copy of all correspondence sent to Native American individuals and groups listed by the NAHC and copies of all responses. Provide a written summary of any oral responses.			
Appendix B (g) (2) (E)	Include in the discussion of proposed mitigation measures required by subdivision (g)(1):			
Appendix B (g) (2) (E) (i)	A discussion of measures proposed to mitigate project impacts to known cultural resources;	N/A		
Appendix B (g) (2) (E) (ii)	A set of contingency measures proposed to mitigate potential impacts to previously unknown cultural resources and any unanticipated impacts to known cultural resources; and	Appendix 5.3B Management Considerations Section 5.3.6 pp. 5.3-32–34	Yes	
Appendix B (g) (2) (E) (iii)	Educational programs to enhance employee awareness during construction and operation to protect cultural resources.	Section 5.3.6.2, p. 5.3-32; AFC, supp. [A], pp. 24 and 25.	No <u>Yes</u>	Generally discuss educational programs to enhance awareness during operation to protect cultural resources, should any resources be discovered during construction.
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.3.2, pp. 5.3-3–9	Yes	

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 2 Date 10/3/11

Technical Area: **Cultural Resources**

Project: Hidden Hills (HHSEGS)

Technical Staff: Kathleen Forrest

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Shaelyn Strattan

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Not included AFC, supp. [A], pp. 25 and 26.	No Yes	Include required table
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Section 5.3.7, table 5.3-8, p. 5.3-34; AFC, supp. [A], p. 26.	No Yes	Include contacts at the local level
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.3.8, pp. 5.3-34–35	Yes	

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/15/11

Technical Area: **Efficiency**

Project: Hidden Hills Solar Electric Generating System

Technical Staff: Shahab Koshmashrab

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Shahab Koshmashrab

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	§§ 1.1, 1.2, 2.1, 2.2, 2.3.2	Yes	
Appendix B (h) (4) (A)	Heat and mass balance diagrams for design conditions for each mode of operation.	Figure 2.2-3	Yes	
Appendix B (h) (4) (B)	Annual fuel consumption in BTUs for each mode of operation, including hot restarts and cold starts.	<u>Data Adequacy Responses (Docketed September 9, 2011): § 2.0</u>	No Yes	Please provide expected annual natural gas consumption in BTUs
Appendix B (h) (4) (C)	Annual net electrical energy produced in MWh for each mode of operation including starts and shutdowns.	<u>Data Adequacy Responses (Docketed September 7, 2011): § 2.0</u>	No Yes	Please provide expected annual net electrical energy produced in MWh for each mode of operation (i.e.; cloud cover when using natural gas, non-cloudy days when utilizing the sunlight)
Appendix B (h) (4) (D)	Number of hours the plant will be operated in each design condition in each year.	§ 2.2.12	Yes	
Appendix B (h) (4) (E)	If the project will be a cogeneration facility, calculations showing compliance with applicable efficiency and operating standards.	N/A	N/A	
Appendix B (h) (4) (F)	A discussion of alternative generating technologies available for the project, including the projected efficiency of each, and an explanation why the chosen equipment was selected over these alternatives.	§§ 1.6, 6.0, 6.7	Yes	

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/15/11

Technical Area: **Efficiency**

Project: Hidden Hills Solar Electric Generating System

Technical Staff: Shahab Koshmashrab

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Shahab Koshmashrab

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	N/A	N/A	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	N/A	N/A	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	N/A	N/A	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	N/A	N/A	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date 9/15/11

Technical Area: **Land Use**

Project: Hidden Hills

Technical Staff: Christina Snow

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Amanda Stennick

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Pg 5.6-7, 5.6-8, 5.6-10, 5.6-13 through 5.6-16 Section 5.6.3, 5.6.6 & 5.6.7	YES	
Appendix B (g) (3) (A)	A discussion of existing land uses and current zoning at the site, land uses and land use patterns within one mile of the proposed site and within one-quarter mile of any project-related linear facilities. Include:	Pg 5.6-7 through 5.6-8 Section 5.6.3	YES	
Appendix B (g) (3) (A) (i)	An identification of residential, commercial, industrial, recreational, scenic, agricultural, natural resource protection, natural resource extraction, educational, religious, cultural, and historic areas, and any other area of unique land uses;	Pg 5.6-8 Section 5.6.3.2.3	YES	
Appendix B (g) (3) (A) (ii)	A discussion of any recent or proposed zone changes and/or general plan amendments; noticed by an elected or appointed board, commission, or similar entity at the state or local level;	Pg 5.6-9 to 5.6-10 Section 5.6.4	YES	
Appendix B (g) (3) (A) (iii)	Identification of all discretionary reviews by public agencies initiated or completed within 18 months prior to filing the application for those changes or developments identified in subsection (g)(3)(A)(ii); and	Pg. 5.6-10 Section 5.6.5	YES	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date 9/15/11

Technical Area: **Land Use**

Project: Hidden Hills

Technical Staff: Christina Snow

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Amanda Stennick

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (A) (iv)	Legible maps of the areas identified in subsection (g)(3)(A) potentially affected by the project, on which existing land uses, jurisdictional boundaries, general plan designations, specific plan designations, and zoning have been clearly delineated.	Figure 5.6-1 & 5.6-2	YES	
Appendix B (g) (3) (B)	A discussion of the compatibility of the proposed project with present and expected land uses, and conformity with any long-range land use plans adopted by any federal, state, regional, or local planning agencies. The discussion shall identify the need, if any, for land use decisions by another public agency or as part of the commission's decision that would be necessary to make the project conform to adopted federal, state, regional, or local coastal plans, land use plans, or zoning ordinances. Examples of land use decisions include: general plan amendments, zoning changes, lot line adjustments, parcel mergers, subdivision maps, Agricultural Land Conservation Act contracts cancellation, and Airport Land Use Plan consistency determinations.	Pgs 5.6-11 through 5.6-13 Section 5.6.6.2.1	YES	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date 9/15/11

Technical Area: **Land Use**

Project: Hidden Hills

Technical Staff: Christina Snow

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Amanda Stennick

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (3) (C)	A discussion of the legal status of the parcel(s) on which the project is proposed. If the proposed site consists of more than one legal parcel, describe the method and timetable for merging or otherwise combining those parcels so that the proposed project, excluding linears and temporary laydown or staging area, will be located on a single legal parcel. The merger need not occur prior to a decision on the Application but must be completed prior to the start of construction.	Page 2-3 Pg. 5-6-11 Section 2.1.1 <u>September Supplement A – Response to Data Adequacy Review (Pages 27-28)</u>	NO <u>YES</u>	
Appendix B (g) (3) (D)	A map at a scale of 1:24,000 and written description of agricultural land uses found within all areas affected by the proposed project. The description shall include:	No Agricultural Lands	N/A	
Appendix B (g) (3) (D) (i)	Crop types, irrigation systems, and any special cultivation practices;	No Agricultural Lands	N/A	
Appendix B (g) (3) (D) (ii)	Whether farmland affected by the project is prime, of statewide importance, or unique as defined by the California Department of Conservation; and	No Agricultural Lands	N/A	
Appendix B (g) (3) (D) (iii)	Direct, indirect, and cumulative effects on agricultural land uses. If the proposed site or related facilities are subject to an Agricultural Land Conservation contract, provide a written copy and a discussion of the status of the expiration or canceling of such contract.	No Agricultural Lands	N/A	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date 9/15/11

Technical Area: **Land Use**

Project: Hidden Hills

Technical Staff: Christina Snow

Project Manager: Mike Monasmith

Docket: 11-AFC-2

Technical Senior: Amanda Stennick

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Pg 5.6-5 through 5.6-7 Section 5.6.2, Table 5.6-2	YES	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Pg. 5.6-3 Section 5.6.2, Table 5.6-1	YES	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Pg 5.6-16 Section 5.6.9, Table 5.6-6	YES	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Not Applicable	N/A	

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/15/11

Technical Area: **Traffic and Transportation**

Project: Hidden Hills Solar Electric Generating System (HHSEGS)

Technical Staff:

Candace M. Hill

Project Manager: Mike Monsasmith

Docket: 11-AFC-2

Technical Senior:

David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Page 5.12-9; Section 5.12.3; Page 5.12-19-20; Section 5.12.4.3 and Section 5.12.5; Page 5.12-20-21; Section 5.12.6	Yes	
Appendix B (g) (5) (A)	A regional transportation setting, on topographic maps (scale of 1:250,000), identifying the project location and major transportation facilities. Include a reference to the transportation element of any applicable local or regional plan.	Figure 5.12-2	Yes	

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/15/11

Technical Area: **Traffic and Transportation**

Project: Hidden Hills Solar Electric Generating System (HHSEGS)

Technical Staff:

Candace M. Hill

Project Manager: Mike Monsasmith

Docket: 11-AFC-2

Technical Senior:

David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (B)	If the proposed project including any linear facility is to be located within 20,000 feet of an airport runway that is at least 3,200 feet in actual length, or 5,000 feet of a heliport (or planned or proposed airport runway or an airport runway under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration), discuss the project's compliance with the applicable sections of the current Federal Aviation Regulation Part 77 – Objects Affecting Navigable Airspace, specifically any potential to obstruct or impede air navigation generated by the project at operation; such as, a thermal plume, a visible water vapor plume, glare, electrical interference, or surface structure height. The discussion should include a map at a scale of 1:24,000 that displays the airport or airstrip runway configuration, the proposed power plant site and related facilities.	Page 5.12-11-12; Section 5.12.3.7 and Section 5.12.3.9.1	Yes	
Appendix B (g) (5) (C)	An identification, on topographic maps at a scale of 1:24,000, and a description of existing and planned roads, rail lines, (including light rail), bike trails, airports, bus routes serving the project vicinity, pipelines, and canals in the project area affected by or serving the proposed facility. For each road identified, include the following information, where applicable:	Figure 5.12-2	Yes	
Appendix B (g) (5) (C) (i)	Road classification and design capacity;	Page 5.12-9-10; Section 5.12.3.1; <u>Supplement A, Page 29</u>	No Yes	Please provide road classification and design capacity.

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**Revision No. 1 Date 9/15/11Technical Area: **Traffic and Transportation**Project: Hidden Hills Solar Electric Generating System (HHSEGS)

Technical Staff:

Candace M. HillProject Manager: Mike MonsasmithDocket: 11-AFC-2

Technical Senior:

David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (5) (C) (ii)	Current daily average and peak traffic counts;	Figure 5.12-2 and Figure 5.12-3	Yes	
Appendix B (g) (5) (C) (iii)	Current and projected levels of service before project development, during construction, and during project operation;	Page 5.12-11; Section 5.12.3.3; Table 5.12-3; Page 5.12-19; Section 5.12.4.2.3; Table 5.12-8	Yes	
Appendix B (g) (5) (C) (iv)	Weight and load limitations;	None; <u>Supplement A, Page 29-30</u>	No Yes	Please provide weight and load limitations.
Appendix B (g) (5) (C) (v)	Estimated percentage of current traffic flows for passenger vehicles and trucks; and	Page 5.12-18; Section 5.12.4.2.2; Table 5.12-7	Yes	
Appendix B (g) (5) (C) (vi)	An identification of any road features affecting public safety.	Page 5.12-12; Section 5.12.3.8; <u>Supplement A, Page 30</u>	No Yes	Please provide an identification of any road features affecting public safety.
Appendix B (g) (5) (D)	An assessment of the construction and operation impacts of the proposed project on the transportation facilities identified in subsection (g)(5)(C). Also include anticipated project-specific traffic, estimated changes to daily average and peak traffic counts, levels of service, and traffic/truck mix, and the impact of construction of any facilities identified in subsection (g)(5)(C).	Page 5.12-14 through 5.12-19; Section 5.12.4.2	Yes	
Appendix B (g) (5) (E)	A discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.	Page 5.12-19-20; Section 5.12.4.3.1; <u>Supplement A, Page 30-32</u>	No Yes	Please provide a discussion of project-related hazardous materials to be transported to or from the project during construction and operation of the project, including the types, estimated quantities, estimated number of trips, anticipated routes, means of transportation, and any transportation hazards associated with such transport.

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/15/11

Technical Area: **Traffic and Transportation**

Project: Hidden Hills Solar Electric Generating System (HHSEGS)

Technical Staff:

Candace M. Hill

Project Manager: Mike Monsasmith

Docket: 11-AFC-2

Technical Senior:

David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Page 5.12-2 through 5.12-5; Section 5.12.2; Table 5.12-1	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Page 5.12-5 through 5.12-9; Section 5.12.2.1 through 5.12.2.3	Yes	
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Page 5.12-22; Section 5.12.7; Table 5.12-9; <u>Supplement A, Page 32-33</u>	No Yes	Please provide the name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Page 5.12-23; Section 5.12-8; Table 5.12-10	Yes	

Adequacy Issue: Adequate **X** Inadequate

Technical Area: **Transmission System Design** Project: Hidden Hills Solar Electric Generating System (HHSEGS) Technical Staff: Sudath Edirisuriya

Project Manager: Mike Monasmith Docket: 11-AFC-2 Technical Senior: Mark Hesters

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/8/2011

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (h) (2) (A)	A discussion of the need for the additional electric transmission lines, substations, or other equipment, the basis for selecting principal points of junction with the existing electric transmission system, and the capacity and voltage levels of the proposed lines, along with the basis for selection of the capacity and voltage levels.	Section 3.1,3.2 (Transmission System Engineering) Pages 3-1 to 3-6 Figure 3.2-1 (proposed Onsite gen-tie lines) Appendix 2D (Electrical Engineering Design criteria)	Yes	
Appendix B (h) (2) (B)	A discussion of the extent to which the proposed electric transmission facilities have been designed, planned, and routed to meet the transmission requirements created by additional generating facilities planned by the applicant or any other entity.	Section 3.1,3.2 (Transmission System Engineering) Pages 3-1 to 3-7 Figure 3.2-1 onsite gen-tie lines Appendix 2D (Electrical Engineering Design criteria)	Yes	

Adequacy Issue: Adequate **X** Inadequate

Technical Area: **Transmission System Design** Project: Hidden Hills Solar Electric Generating System (HHSEGS) Revision No. 1 Date 9/8/2011

Project Manager: Mike Monasmith Docket: 11-AFC-2 Technical Staff: Sudath Edirisuriya

Technical Senior: Mark Hesters

DATA ADEQUACY WORKSHEET

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (C)	A detailed description of the design, construction, and operation of any electric transmission facilities, such as power lines, substations, switchyards, or other transmission equipment, which will be constructed or modified to transmit electrical power from the proposed power plant to the load centers to be served by the facility. Such description shall include the width of rights of way and the physical and electrical characteristics of electrical transmission facilities such as towers, conductors, and insulators.	<p>Section 3.1,3.2 (Transmission System Engineering) Pages 3-1 to 3-7</p> <p>Section 2.1.2.5 (Transmission line, Pages 2-5 and 2-7</p> <p>Figure 3.2-1 onsite gen-tie lines</p> <p>Appendix 2D (Electrical Engineering Design criteria)</p>	<p>No Yes</p> <p><u>Data adequacy, Supplement section 3.0 submitted by the applicant on September 7,2011</u></p>	<p>1. Provide a complete electrical one-line diagram (or resubmit Figure 3.2-2) of Hidden Hills Solar Electric Generating System plant 1 and 2 switchyard showing all equipments for generator interconnection with the onsite switchyard including any bus duct connectors or cables, 4.16 kV switchgear & breakers on the low side (13.8kV), generator step-up transformers, underground cables and overhead conductors with its configuration, buses, breakers and disconnect switches on the 230-kV side and their respective ratings.</p> <p>2. Provide conductor current carrying capacity, size and type, 230-kV pole configuration and number of poles that would be required to construct the proposed 900-foot segment (within the California border) of the HHSEGS-El Dorado 230kV double-circuit transmission lines.</p>

Adequacy Issue: Adequate **X** Inadequate

Technical Area: **Transmission System Design** Project: Hidden Hills Solar Electric Generating System (HHSEGS) Revision No. 1 Date 9/8/2011

Project Manager: Mike Monasmith Docket: 11-AFC-2 Technical Senior: Mark Hesters

DATA ADEQUACY WORKSHEET

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (D)	A description of how the route and additional transmission facilities were selected, and the consideration given to engineering constraints, environmental impacts, resource conveyance constraints, and electric transmission constraints.	<p>Section 3.1,3.2 (Transmission System Engineering) Pages 3-1 to 3-7</p> <p>Figure 3.2-1 onsite gen-tie lines</p> <p>Figure 3.2-2 (proposed 230kV transmission line routing Hidden Hills Solar Electric Generating system 1 and 2)</p> <p>Appendix 2D (Electrical Engineering Design Criteria)</p>	Yes	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date 9/8/2011

Technical Area:

Transmission System Design

Project:

Hidden Hills Solar Electric Generating
System (HHSEGS)

Technical Staff:

Sudath Edirisuriya

Project Manager:

Mike Monasmith

Docket:

11-AFC-2

Technical Senior:

Mark Hesters

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (b) (2) (E)	<p>A completed System Impact Study or signed System Impact Study Agreement with the California Independent System Operator and proof of payment. When not connecting to the California Independent System Operator controlled grid, provide the executed System Impact Study agreement and proof of payment to the interconnecting utility.</p> <p>If the interconnection and operation of the proposed project will likely impact an transmission system that is not controlled by the interconnecting utility (or California Independent System Operator), provide evidence of a System Impact Study or agreement and proof of payment (when applicable) with/to the impacted transmission owner or provide evidence that there are no system impacts requiring mitigation.</p>	Appendix 3A (Generator Interconnection Study process Agreement)	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, and permits applicable to the proposed project, and a discussion of the applicability of each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed;	<p>Section 3.4 (Applicable laws, ordinances, regulations, and Standards)</p> <p>Table 3.4-1 (Design and construction laws)</p>	No Yes <u>Data adequacy, Supplement section 3.0 submitted by the applicant on September 7, 2011</u>	Need to discuss the CPUC G.O 95 and 128 rules and how they applicable in construction of underground and overhead transmission lines.

Adequacy Issue: Adequate **X** Inadequate

Technical Area: **Transmission System Design** Project: Hidden Hills Solar Electric Generating System (HHSEGS) Technical Staff: Sudath Edirisuriya

Project Manager: Mike Monasmith Docket: 11-AFC-2 Technical Senior: Mark Hesters

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/8/2011

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 3.4.5 and 3.4.2 Jurisdictional Agencies Table 3.4-7 (Jurisdictional Agencies for Transmission System Engineering related LORS)	Yes	
Appendix B (i) (2)	The name, title, phone number, and address, if known, of an official within each agency who will serve as a contact person for the agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Appendix 1.0.B	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 3.2.3	No Yes <u>Data adequacy, Supplement section 3.0 submitted by the applicant on September 7, 2011</u>	Indicate when the project will receive preliminary approval from the California ISO, and when a copy of an updated Cluster study will be available and provided to the California Energy Commission.

Adequacy Issue: Adequate **X** Inadequate

DATA ADEQUACY WORKSHEET

Revision No. 1 Date 9/9/2011

Technical Area: **Visual Resources**

Project: Hidden Hills Solar Electric Generating System

Technical Staff: Melissa Mourkas

Project Manager: Mike Monasmith

Docket: 11-AFC-02

Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.13.4.4, pp. 5.13-29 to 32.	Yes	
Appendix B (g) (6) (A)	Descriptions of the existing visual setting of the vicinity of the proposed project site and the proposed routes for any project-related linear facilities. Include:	Section 5.13.3, pp. 5.13-5 to 7.	Yes	
Appendix B (g) (6) (A) (i)	Topographic maps at a scale of 1:24,000 that depict directions from which the project would be seen, the view areas most sensitive to the potential visual impacts of the project, and the locations where photographs were taken for (g)(6)(C); and	Figure 2.1-2, Figure 2.1-4 (Project Description); Figure 5.13-1 Landscape Context & KOP Locations.	Yes	
Appendix B (g) (6) (A) (ii)	Description of the existing visual properties of the topography, vegetation, and any modifications to the landscape as a result of human activities, including existing water vapor plumes, above-ground electrical transmission lines, and nighttime lighting levels in the project viewshed.	Section 5.13.3, pp. 5.13-5 to 7.	Yes	

Adequacy Issue: Adequate **X** Inadequate **DATA ADEQUACY WORKSHEET** Revision No. 1 Date 9/9/2011

Technical Area: **Visual Resources** Project: Hidden Hills Solar Electric Generating System Technical Staff: Melissa Mourkas

Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (B)	An assessment of the visual quality of those areas that would be affected by the proposed project. For projects proposed to be located within the coastal zone, the assessment should also describe how the proposed project would be sited to protect views to and along the ocean and scenic coastal areas, would minimize the alteration of natural land forms, would be visually compatible with the character of surrounding areas.	Section 5.13.3.5, pp. 5.13-9 to 16.	Yes	
Appendix B (g) (6) (C)	In consultation with Energy Commission staff, identify: i) any designated scenic roadways or scenic corridors and any visually sensitive areas that would be affected by the proposed project, including recreational and residential areas; and ii) the locations of the key observation points to represent the most critical viewing locations from which to conduct detailed analyses of the visual impacts of the proposed project. Indicate the approximate number of people using each of these sensitive areas and the estimated number of residences with views of the project. Also identify any major public roadways and trails of local importance that would be visually impacted by the project and indicate the types of travelers (e.g., local residents, recreationists, workers, commuters, etc.) and the approximate number of vehicles, bicyclists, and/or hikers per day.	Section 5.13.3.5, pp. 5.13-9 to 16.	Yes	

Adequacy Issue: Adequate **X** Inadequate _____ **DATA ADEQUACY WORKSHEET** Revision No. 1 Date 9/9/2011

Technical Area: **Visual Resources** Project: Hidden Hills Solar Electric Generating System Technical Staff: Melissa Mourkas

Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (D)	A table providing the dimensions (height, length, and width, or diameter) and, proposed color(s), materials, finishes, patterns, and other proposed design characteristics of each major component visible from off the project site, including any project-related electrical transmission line and/or offsite aboveground pipelines and metering stations.	Table 5.13-4, pp. 5.13-20 to 21.	Yes	

Adequacy Issue: Adequate **X** Inadequate _____ **DATA ADEQUACY WORKSHEET** Revision No. 1 Date 9/9/2011
 Technical Area: **Visual Resources** Project: Hidden Hills Solar Electric Generating System Technical Staff: Melissa Mourkas
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (E)	Provide the cooling tower and heat recovery steam generator (HRSG) exhaust design parameters that affect <u>visible plume formation</u> . For the cooling tower, data shall include heat rejection rate, exhaust temperature, exhaust mass flow rate, liquid to gas mass flow ratio, and, if the tower is plume-abated, moisture content (percent by weight) or plume-abated fogging curve(s). The parameters shall account for a range of ambient conditions (temperature and relative humidity) and proposed operating scenarios, such as duct firing and shutting down individual cells. For the heat recovery steam generator exhausts, data shall include moisture content (percent by weight), exhaust mass flow rate, and exhaust temperature. The parameters must correspond to full-load operating conditions at specified ambient conditions, and shall account for proposed operating scenarios, such as power augmentation (i.e., evaporative coolers, inlet foggers, or steam injection) and duct firing, or proposed HRSG visible plume abatement, such as the use of an economizer bypass. For simple-cycle projects, provide analogous data for the exhaust stack(s).	Section 5.13.4.2.2, p. 5.13-22.	Yes	

Adequacy Issue: Adequate **X** Inadequate **DATA ADEQUACY WORKSHEET** Revision No. 1 Date 9/9/2011

Technical Area: **Visual Resources** Project: Hidden Hills Solar Electric Generating System Technical Staff: Melissa Mourkas

Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (F)	Provide: i) full-page color photographic reproductions of the existing site, and ii) full-page color simulations of the proposed project at life-size scale when the picture is held 10 inches from the viewer's eyes, including any project-related electrical transmission lines, in the existing setting from each key observation point. If any landscaping is proposed to comply with zoning requirements or to mitigate visual impacts, include the landscaping in simulation(s) representing sensitive area views, depicting the landscaping five years after installation; and estimate the expected time until maturity is reached.	Figures 5.13-2 to 7.	Yes	
Appendix B (g) (6) (G)	An assessment of the visual impacts of the project, including light, glare, and any modeling of visible plumes. Include a description of the method and identify any computer model used to assess the impacts. Provide an estimate of the expected frequency and dimensions (height, length, and width) of the visible cooling tower and/or exhaust stack plumes. Provide the supporting assumptions, meteorological data, operating parameters, and calculations used.	Section 5.13.4.2.3, pp. 5.13-22 to 23.	Yes	

Adequacy Issue:

Adequate **X** Inadequate**DATA ADEQUACY WORKSHEET**

Revision No. 1 Date 9/9/2011

Technical Area: **Visual Resources**

Project: Hidden Hills Solar Electric Generating System

Technical Staff: Melissa Mourkas

Project Manager: Mike Monasmith

Docket: 11-AFC-02

Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (g) (6) (H)	If any landscaping is proposed to reduce the visual impacts of the project, provide a conceptual landscaping plan at a 1:40 scale (1"=40'). Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.	Section 5.13.4.2.5, p.5.13-24; Section 5.13.6, p. 5.13-32, Item # 4. <u>Supplement A, p.34;</u> <u>Exhibits VR-1a, VR-1b and VR-1c.</u>	No <u>Yes</u>	Please provide a conceptual landscaping plan at a 1:40 scale (1"=40'), as identified in the AFC to address visual impacts to viewers from Tecopa Road and the Charleston View residential area. Include information on the type of plant species proposed, their size, quantity, and spacing at planting, expected heights at 5 years and maturity, and expected growth rates.
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Table 5.13-1, p. 5.13-3; Table 5.13-2, p. 5.13-4; Table 5.13-3, p. 513-4.	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.13.7, p. 5.13-33; Table 5.13-6, p. 5.13-33; Table 5.6-6, p. 5.6-16 (Land Use).	Yes	

Adequacy Issue: Adequate **X** Inadequate _____ **DATA ADEQUACY WORKSHEET** Revision No. 1 Date 9/9/2011

Technical Area: **Visual Resources** Project: Hidden Hills Solar Electric Generating System Technical Staff: Melissa Mourkas

Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: David Flores

SITING REGULATIONS	INFORMATION	AFC PAGE NUMBER AND SECTION NUMBER	ADEQUATE YES OR NO	INFORMATION REQUIRED TO MAKE AFC CONFORM WITH REGULATIONS
Appendix B (i) (2)	The name, title, phone number, address (required), and email address (if known), of an official who was contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.	Table 5.13-6, p 5.13-33.	Yes	
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.13.8, p. 5.13-33.	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐ **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

Technical Area: Water Project: Hidden Hills SEGS Technical Staff: Mike Conway
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
Appendix B (g) (1)	...provide a discussion of the existing site conditions, the expected direct, indirect and cumulative impacts due to the construction, operation and maintenance of the project, the measures proposed to mitigate adverse environmental impacts of the project, the effectiveness of the proposed measures, and any monitoring plans proposed to verify the effectiveness of the mitigation.	Section 5.15 page 2 5.15 page 6 5.15 page 21	Yes	
Appendix B (g) (14) (A)	All the information required to apply for the following permits if applicable, including:			
Appendix B (g) (14) (A) (i)	Waste Discharge Requirements; National Pollutant Discharge Elimination System Permit; and/or a Section 401 Certification or Waiver from the appropriate Regional Water Quality Control Board (RWQCB);	Section 5.15 page 4	Yes	
Appendix B (g) (14) (A) (ii)	Construction and Industrial Waste Discharge and/or Industrial Pretreatment permits from wastewater treatment agencies;	Section 5.15 page 4	Yes	
Appendix B (g) (14) (A) (iii)	Nationwide Permits and/or Section 404 Permits from the U.S. Army Corps of Engineers; and	Section 5.15 page 4	Yes	
Appendix B (g) (14) (A) (iv)	Underground Injection Control Permit(s) from the U.S. Environmental Protection Agency, California Division of Oil and Gas, and RWQCB.	NA	NA	
Appendix B (g) (14) (B)	A detailed description of the hydrologic setting of the project. The information shall include a narrative discussion and on maps at a scale of 1:24,000 (or appropriate scale approved by staff), describing the chemical and physical characteristics of the following nearby water bodies that may be affected by the proposed project:	Section 5.15 page 6 Map: Fig. 5.15.3 Appendix 5.15-A,C,E	Yes	
Appendix B (g) (14) (B) (i)	Ground water bodies and related geologic structures;	Section 5.15 page 8	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐ **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

Technical Area: Water Project: Hidden Hills SEGS Technical Staff: Mike Conway
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
Appendix B (g) (14) (B) (ii)	Surface water bodies;	Section 5.15 page 7	Yes	
Appendix B (g) (14) (B) (iii)	Water inundation zones, such as the 100-year flood plain and tsunami run-up zones;	Section 5.15 page 13	Yes	
Appendix B (g) (14) (B) (iv)	Flood control facilities (existing and proposed); and	Section 5.15 page 13	Yes	
Appendix B (g) (14) (B) (v)	Groundwater wells within ½ mile if the project will include pumping.	App. 5.15 page F	Yes	
Appendix B (g) (14) (C)	A description of the water to be used and discharged by the project. This information shall include:	Section 5.15 page 15 5.15- page 15 Figure 2.2-4	Yes	
Appendix B (g) (14) (C) (i)	Source(s) of the primary and back-up water supplies and the rationale for their selection;	Section 5.15 page 8 <u>Supplement A, page 35</u>	No <u>Yes</u>	Provide a discussion of alternate water supplies that may be used as backup. The AFC describes specifically how if allocated rights are exercised, the basin may not provide sustainable yield to users. No water supplies were identified that may be used as a backup if the proposed mitigation of retiring existing water rights is not feasible.
Appendix B (g) (14) (C) (ii)	The expected physical and chemical characteristics of the source and discharge water(s) including identification of both organic and inorganic constituents before and after any project-related treatment. For source waters with seasonal variation, provide seasonal ranges of the expected physical and chemical characteristics. Provide copies of background material used to create this description (e.g., laboratory analysis);	Section 5.15 page 10 Appendix 5.15-F,G	Yes	
Appendix B (g) (14) (C) (iii)	Average and maximum daily and annual water demand and waste water discharge for both the construction and operation phases of the project;	Section 5.15 page 15 Figure 2.2-4 2.2 page 11	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐ **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

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 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
Appendix B (g) (14) (C) (iv)	A detailed description of all facilities to be used in water conveyance (from primary source to the power plant site), water treatment, and wastewater discharge. Include a water mass balance diagram;	Section 5.15 page 8 Section 2, Figure 2.2-3,4	Yes	
Appendix B (g) (14) (C) (v)	For all water supplies intended for industrial uses to be provided from public or private water purveyors, a letter of intent or will-serve letter indicating that the purveyor is willing to serve the project, has adequate supplies available for the life of the project, and any conditions or restrictions under which water will be provided. In the event that a will-serve letter or letter of intent not provided, identify the most likely water purveyor and discuss the necessary assurances from the water purveyor to serve the project;	NA		
Appendix B (g) (14) (C) (vi)	For all water supplied which necessitates transfers and/or exchanges at any point, identify all parties and contracts/agreements involved, the primary source for the transfer and/or exchange water (e.g., surface water, groundwater), and provide the status of all appropriate agencies' approvals for the proposed use, environmental impact analysis on the specific transfers and/or exchanges required to obtain the proposed supplies, a copy of any agency regulations that govern the use of the water, and an explanation of how the project complies with the agency regulation(s);	<u>Supplement A, page 36</u>	No <u>Yes</u>	Provide copies of contracts or other documentation demonstrating the mitigation for water use is feasible. AFC clearly defines overdraft in the basin, without any specific mitigation. If agricultural land can be retired to offset project water use, an indication of location and viability is necessary.
Appendix B (g) (14) (C) (vii)	Provide water mass balance and heat balance diagrams for both average and maximum flows that include all process and/or ancillary water supplies and wastewater streams. Highlight any water conservation measures on the diagram and the amount that they reduce water demand; and	Section 5.15 page 8 Section 2, Figure 2.2-3,4	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐ **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

Technical Area: Water Project: Hidden Hills SEGS Technical Staff: Mike Conway
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
Appendix B (g) (14) (C) (viii)	For all projects which have a discharge, provide a copy of the will-serve letter, permit or contract with the public or private entity that will be accepting the wastewater and contact storm water from the project. The letter, permit or contract if possible, shall identify the discharge volumes and the chemical or physical characteristics under which the wastewater and contact storm water will be accepted. In the event that a will-serve letter, permit, or contract cannot be provided, identify the most likely wastewater/storm water entity and discuss why the applicant was unable to secure the necessary assurances to serve the project's wastewater/storm water needs. Also, discuss the term of the wastewater service to the project, whether the wastewater entity has adequate permit capacity for the volume of wastewater from the project and has adequate permit levels for the chemical/physical characteristics of the project's wastewater and storm water for the life of the project, and any issues or conditions/restrictions the wastewater entity may impose on the project.	NA		
Appendix B (g) (14) (D)	Identify all project elements associated with stormwater drainage and include the following:	Appendix 5.15-C	Yes	
Appendix B (g) (14) (D) (i)	Monthly and/or seasonal precipitation and stormwater runoff and drainage patterns for the proposed site and surrounding area that may be affected by the project's construction and operation;	Appendix 5.15-C	Yes	
Appendix B (g) (14) (D) (ii)	Drainage facilities and the design criteria used for the plant site and ancillary facilities, including but not limited to capacity of designed system, design storm, and estimated runoff;	Appendix 5.15-C	Yes	
Appendix B (g) (14) (D) (iii)	All assumptions and calculations used to calculate runoff and to estimate changes in flow rates between pre- and post construction; and	Appendix 5.15-C and E	Yes	

Adequacy Issue: Adequate ☒ Inadequate ☐ **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

Technical Area: Water Project: Hidden Hills SEGS Technical Staff: Mike Conway
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
Appendix B (g) (14) (D) (iv)	A copy of applicable regional and local requirements regulating the drainage systems, and a discussion of how the project's drainage design complies with these requirements.	Appendix 5.15-C and E	Yes	
Appendix B (g) (14) (E)	An impacts analysis of the proposed project on water resources and a discussion of conformance with water -related LORS and policy. This discussion shall include:	Section 5.15 page 21	Yes	
Appendix B (g) (14) (E) (i)	The effects of project demand on the water supply and other users of this source including, but not limited to, water availability for other uses during construction or after the power plant begins operation, consistency of the water use with applicable RWQCB basin plans or other applicable resource management plans, and any changes in the physical or chemical conditions of existing water supplies as a result of water use by the power plant;	<u>Supplement A,</u> <u>Attachment WR-1</u>	No <u>Yes</u>	Describe and present data on the vertical and horizontal variability of groundwater quality within the aquifer(s). Describe potential changes in groundwater quality due to project pumping.
Appendix B (g) (14) (E) (ii)	If the project will pump groundwater, an estimation of aquifer drawdown based on a computer modeling study shall be conducted by a professional geologist and include the estimated drawdown on neighboring wells within 0.5 mile of the proposed well(s), any effects on the migration of groundwater contaminants, and the likelihood of any changes in existing physical or chemical conditions of groundwater resources shall be provided;	Appendix 5.15-F and G	Yes	
Appendix B (g) (14) (iii)	The effects of construction activities and plant operation on water quality and to what extent these effects could be mitigated by best management practices;	Section 5.15 page 14	Yes	
Appendix B (g) (14) (iv)	If not using a zero liquid discharge project design for cooling and process waters, include the effects of the proposed wastewater disposal method on receiving waters, the feasibility of using pre-treatment techniques to reduce impacts, and	NA		

Adequacy Issue: Adequate ☒ Inadequate ☐ **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

Technical Area: Water Project: Hidden Hills SEGS Technical Staff: Mike Conway
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
	beneficial uses of the receiving waters. Include an explanation why the zero liquid discharge process is "environmentally undesirable," or "economically unsound;"			
Appendix B (g) (14) (v)	If using fresh water, include a discussion of the cumulative impacts, alternative water supply sources and alternative cooling technologies considered as part of the project design. Include an explanation of why alternative water and alternative cooling are supplies "environmentally undesirable," or "economically unsound";	Section 5.15 page 20 5.15 page18	Yes	
Appendix B (g) (14) (vi)	The effects of the project on the 100-year flood plain, flooding potential of adjacent lands or water bodies, or other water inundation zones ; and	Section 5.15 page 20	Yes	
Appendix B (g) (14) (vii)	All assumptions, evidence, references, calculations used in the analysis to assess these effects.	Appendix 5.15C and E	Yes	
Appendix B (i) (1) (A)	Tables which identify laws, regulations, ordinances, standards, adopted local, regional, state, and federal land use plans, leases, and permits applicable to the proposed project, and a discussion of the applicability of, and conformance with each. The table or matrix shall explicitly reference pages in the application wherein conformance, with each law or standard during both construction and operation of the facility is discussed; and	Section 5.15 page 2	Yes	
Appendix B (i) (1) (B)	Tables which identify each agency with jurisdiction to issue applicable permits, leases, and approvals or to enforce identified laws, regulations, standards, and adopted local, regional, state and federal land use plans, and agencies which would have permit approval or enforcement authority, but for the exclusive authority of the commission to certify sites and related facilities.	Section 5.15 page 2	Yes	
Appendix B	The name, title, phone number, address (required), and email address (if known), of an official who was	Section 5.15 page 22	Yes	

Adequacy Issue: Adequate **X** Inadequate **DATA ADEQUACY WORKSHEET** Revision No.: 1 Date: 9/15/2011

Technical Area: **Water** Project: Hidden Hills SEGS Technical Staff: Mike Conway
 Project Manager: Mike Monasmith Docket: 11-AFC-02 Technical Senior: Paul Marshall

Siting Regulations	Information	AFC Page Number and Section Number	Adequate Yes or No	Information Required to Make AFC Conform with Regulations
(i) (2)	contacted within each agency, and also provide the name of the official who will serve as a contact person for Commission staff.			
Appendix B (i) (3)	A schedule indicating when permits outside the authority of the commission will be obtained and the steps the applicant has taken or plans to take to obtain such permits.	Section 5.15 page 23	Yes	